

TWO NEW SPECIES OF RUBUS FROM VERMONT AND
NEW HAMPSHIRE.

W. H. BLANCHARD.

OF the new species of Rubus, here described, both belong to the high blackberry series. The first is a rather small and delicate species, glabrous and glandless, with dark green leaves, small, early fruit, and slender, strong, and often numerous prickles. The second is noteworthy for its large and abundant fruit which is of excellent flavor. The species may be characterized as follows:—

Rubus elegantulus, n. sp. Plants from two to four feet high, very erect and pretty.

New canes. Stems very erect, 2 to 4 feet high, glabrous, red, well angled and furrowed, rather small. Prickles on the angles only, slender with a slight backward slant, strong and waspish to handle, about 12 to the inch of stem on typical plants but often less. Leaves thin, small, 5-foliate, dark green above and slightly lighter below, perfectly glabrous, or sometimes slightly hairy above and pubescent below, but not appreciably so to the touch or to the unaided eye. Leaflets oval, long taper-pointed; outline entire, finely and doubly serrate-dentate, the middle one rather broad with rounded base and twice as long as wide, the others wedge-shaped at the base and narrow. Petiole and petiolules grooved above with three rows of hooked, slender, short and strong prickles, the petiolule of the middle leaflet $\frac{3}{4}$ of an inch long, those of the side leaflets less than half as long, the basal leaflets sessile.

Old canes. Erect as ever, prickles but little impaired, the cane pyramidal in shape as in all true high blackberries. Growth of second or bearing year consisting of leafy branches below; above of racemes leafy at the base with a straight axis, not a leafy branch tipped with a raceme, one from each old leaf axil, or in many cases from two to four leafless racemes. Inflorescence with a fine pubescence or none; peduncle slender, pedicels very slender generally set at a great angle to the axis, 10- to 16-flowered, bracts small. True branches small, 6 to 10 in. long, zigzag, nearly terete, glabrous, prickles hooked; leaves 3-foliate at the base, leaflets broad and short-pointed; terminal ones 5-foliate like those on new canes, all similar in color, texture and serration to those on new canes. Leaves on racemes proper more coarsely serrate-

dentate, 3-foliolate, a few sometimes unifoliolate, small on the upper ones, larger on those below. Flowers 1 to 1½ in. broad, petals long-oval at least twice as long as wide with no apparent claw. Fruit nearly globular, ¼ to ⅓ in. in diameter, or on strong plants cylindric and larger, sweet, drupelets black and rather larger than those of *R. nigrobaccus*, Bailey. Flowers early in June and fruits early in August, productive.

Type stations: Signal Hill and its northern borders in Alstead, Cheshire County, N. H., being midway between Alstead Center and Beryl Mt., Acworth; Thompsonburg in Londonderry, Athens, Stratton and Windham in Windham County, Vt. Range as now known to me; Southwestern New Hampshire and Southeastern Vermont. Elevated situations in open places on dry ground. Numerous specimens have been deposited by me in the Gray Herbarium and in that of the N. Y. Botanical Garden.

This pretty species which seems to be distinct from anything yet described, I first found July 4, 1902, in Athens, Vt., on Bemis Hill and I have watched it each season since. It grows in elevated situations not occurring in the towns bordering on the Connecticut River. To be specific, I have found it often abundant in Athens, Grafton, Jamaica Londonderry, Stratton, Wardsboro and Windham, Vt., and in Acworth, Alstead and Langdon, N. H., an east and west range of forty miles. It blossoms and fruits the earliest of all blackberries in the localities in which it grows.

It is readily distinguishable from the other high blackberries by its prim appearance, early fruiting and numerous slender prickles; from the recurving class by its narrow leaflets and erect and furrowed stem; and from the *setosus* class by its strong prickles, lack of glandular hairs and all the other characteristics mentioned in this paragraph.

Rubus pergratus, n. sp. Large, erect plants more or less pubescent, and nearly, or quite glandless, producing an abundance of large, short-cylindrical, very edible fruit.

New canes. Stems erect, 3 to 6 feet high, large and strong, red and glabrous, angled and furrowed. Prickles few, short, about ⅛ in. long, strong, stout, 2 to 8 to the inch of stem, set at nearly a right angle to it and on its angles only. Leaves of good size, often large, 5-foliolate, dark yellow-green and nearly glabrous on the upper surface, lighter on the lower surface and pubescent. Leaves long-stalked, oval, often broad-oval, the middle one sometimes ovate or nearly orbicular and a trifle cordate, outline entire, finely often doubly serrate or serrate-

dentate, taper-pointed, rounded at the base or the basal leaflets broadly wedge-shaped. Petiole and petiolules stout, grooved above, nearly or quite glabrous, glandless, with a few hooked, strong prickles; the petiolule of the middle leaflet 1 to 1½ in. long, those of the side leaflets over one-half as long, the basal leaflets never sessile.

Old canes. Still erect, pyramidal, the prickles intact. Second year's growth consisting of nearly leafless racemes at the top of the stem, succeeded downward by racemes leafy at the base, and these in turn succeeded by pure leaf branches. Stems of leaf branches irregularly angled, 8 to 12 in. long, more or less pubescent, even woolly on some, prickles small and hooked; leaves 3-foliolate at the base of each branch, 5-foliolate beyond, resembling those on the new canes, but broader and more pubescent. Racemed branches or fruit branches with a stout axis, irregularly angled, pubescent or woolly, prickles short and recurved; leaves 3-foliolate and unifoliolate; leaflets very broad and pubescent, coarsely serrate-dentate; about 8 to 12 stout pedicels, very pubescent often woolly with sometimes a stalked gland, set at a moderate angle to the axis, subtended by small bracts; raceme broadest at its top. Naked racemes similar. Flowers large and showy, 1¼ to 1½ in. broad, petals wide, width two thirds of the length, opening the middle of June. Fruit very large short-cylindric, drupelets large and pulpy, sweet; seeds small and unnoticeable. Very productive. Resembles some cultivated kinds. Ripe early in August.

Type station Alstead, N. H., one mile east of Signal Hill. Abundant there and in the elevated parts of Windham County, Vt.

Two other stations where I have found it very abundant and perfect are the lower slopes of Glebe Mt., Londonderry and in South Windham, Vt., though I have found it equally perfect in many other places. It shows its characteristics best in open sun while in moist, rich shade where it grows very tall and leafy its distinguishing features are somewhat obscured.

This blackberry which I have been watching since 1902 closely resembles *some* of those now in cultivation. It is called by the people living where it grows the "square blackberry," and the "short blackberry," in distinction from the "long blackberry" and the "sheep-teat" and "sow-teat," three well-known names for *R. nigrobaccus*, Bailey. In the immediate valley of the Connecticut River where I live, *R. nigrobaccus* is very abundant and is the only "high" blackberry the people know; but as you get away from the river and into more ele-

vated sections it becomes less common and less productive, and berry pickers resort to the square blackberry. This in still more elevated sections becomes scarce and the mountain blackberry, *R. canadensis*, often called the "sour blackberry" is the common kind.

At the type station in Alstead, N. H., *R. pergratus* and *R. nigrobaccus* grow in perfection side by side and the former ripens two weeks the earlier. It is an exact match for the cultivated fruit sold in Bellows Falls, Vt., where it is marketed. With its large drupelets the seeds are hardly noticeable while the fruit of *R. nigrobaccus* with often 100 drupelets is characteristically "seedy," but its peculiarly aromatic taste nevertheless makes it the king of blackberries. I have deposited an abundant supply of specimens of this species in the Gray Herbarium.

WESTMINSTER, VERMONT.

SOME NEW RECORDS OF MAINE PLANTS.

ORA W. KNIGHT.

Eriophorum polystachion L. In Prof. Fernald's recent article on North American Species of *Eriophorum*, RHODORA, May, 1905, p. 89, he does not give this species as found southwest of Nova Scotia and New Brunswick, all Maine specimens being referred to the variety *elatus* Bab. Some slender specimens which I collected at Veazie, June 10, 1905, where they were growing in a wet meadow, have been referred to the species by Prof. Fernald thus giving it a place in our flora.

Eriophorum viridi-carinatum fellowsii Fernald. I am able to record this from the second known Maine station, having collected it on a wet springy slope at Charleston, July 4, 1905. This was the only form growing in this locality.

Iva ciliata Willd. This does not appear to be recorded from Maine. Several plants were growing in a dump near Bangor and were collected by Mr. F. M. Billings and myself on October 6, 1905, at which time they were just in bloom.